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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,862	02/06/2004	Stephen C. Habermas	GP-301352 (2760/167)	6528

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EXAMINER	
CHAWAN, VIJAY B	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,862	HABERMAS ET AL.	
	Examiner	Art Unit	
	Vijay B. Chawan	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the correspondence filed 02/06/2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 30 –33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damoulakis et al., (4,720,802), in view of Goldberg et al., (5,970,446).

As per claim 30, Damoulakis et al., teach an automated speech recognition filter, comprising:

means for determining one or more models representative of a signal degradation of a first speech signal transmitted from a transceiver to said automated speech recognition filter (Col.17, lines 2-9, Col.19, lines 3-8, Fig.1);

means for providing a second speech signal as a function of the one or more models, the second speech signal being an approximation of the first speech signal (Col.23, lines 66-67, Col.28, lines 61-67).

However, Damoulakis et al., do not specifically teach an ASR filter, wherein the one or more models includes at least one of a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model. Goldberg et al., do teach a Hidden Markov Model that is created to model a specific background noise. When a call is placed, background noise is recorded and analyzed to determine which HMM id more appropriate to be used (Col.3, lines 10-15). A variety of models may be used (Fig.1, item 20). Also, Goldberg et al., teach cellular interference noise, and Internet connection noise (Col.3, lines 24-26). Therefore, one or more of HMMs may include a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, as taught by Goldberg et al., (Col.3, lines 24-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the ASR filter of Damoulakis et al., with the models of Goldberg et al., because, one of ordinary skill in the art would readily recognize that a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, are all models that can representative of a signal degradation of a speech signal during cellular and Internet use.

As per claim 31, Damoulakis et al., teach an automated speech filtering device, comprising:

means for determining one or more models representative of a signal degradation of a first speech signal transmitted from a transceiver to said automated speech filtering device (Col.17, lines 2-9, Col.19, lines 3-8, Fig.1);

means for providing a second speech signal as a function of the one or more models, the second speech signal being an approximation of the first speech signal (Col.23, lines 66-67, Col.28, lines 61-67).

However, Damoulakis et al., do not specifically teach an ASR filter, wherein the one or more models includes at least one of a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model. Goldberg et al., do teach a database operable to store a user profile corresponding to the first set of one or more models (Col.3, lines 24-26). Goldberg et al., do teach a Hidden Markov Model that is created to model a specific background noise. When a call is placed, background noise is recorded and analyzed to determine which HMM id more appropriate to be used (Col.3, lines 10-15). A variety of models may be used (Fig.1, item 20). Also, Goldberg et al., teach cellular interference noise, and Internet connection noise (Col.3, lines 24-26). Therefore, one or more of HMMs may include a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, as taught by Goldberg et al., (Col.3, lines 24-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the ASR filter of Damoulakis et al., with the models of Goldberg et al., because, one of ordinary skill in the art would readily

recognize that a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, are all models that can representative of a signal degradation of a speech signal during cellular and Internet use.

As per claim 32, Damoulakis et al., teach an automated speech recognition system, comprising:

means for determining one or more models representative of a signal degradation of a first speech signal transmitted from a transceiver to said automated speech filtering device (Col.17, lines 2-9, Col.19, lines 3-8, Fig.1);

means for providing a second speech signal as a function of the one or more models, the second speech signal being an approximation of the first speech signal (Col.23, lines 66-67, Col.28, lines 61-67),and,

an automated speech recognition platform operable to provide an audio signal in response to a reception of the second speech signal, the audio signal corresponding to a context of the first speech signal (Col.23, lines 66-67, Col.28, lines 61-67).

However, Damoulakis et al., do not specifically teach an ASR filter, wherein the one or more models includes at least one of a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model. Goldberg et al., do teach a Hidden Markov Model that is created to model a specific background noise. When a call is placed, background noise is recorded and analyzed to determine which HMM id more appropriate to be used (Col.3, lines 10-15). A variety of models may be used (Fig.1,

item 20). Also, Goldberg et al., teach cellular interference noise, and Internet connection noise (Col.3, lines 24-26). Therefore, one or more of HMMs may include a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, as taught by Goldberg et al., (Col.3, lines 24-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the ASR filter of Damoulakis et al., with the models of Goldberg et al., because, one of ordinary skill in the art would readily recognize that a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, are all models that can representative of a signal degradation of a speech signal during cellular and Internet use.

As per claim 33, Damoulakis et al., teach an automated speech filtering method, comprising:

determining one or more models representative of a signal degradation of a first speech signal transmitted from a transceiver to said automated speech filtering device (Col.17, lines 2-9, Col.19, lines 3-8, Fig.1);

providing a second speech signal as a function of the one or more models, the second speech signal being an approximation of the first speech signal (Col.23, lines 66-67, Col.28, lines 61-67).

However, Damoulakis et al., do not specifically teach an ASR filtering method, wherein the one or more models includes at least one of a transceiver reception model,

a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model. Goldberg et al., do teach a Hidden Markov Model that is created to model a specific background noise. When a call is placed, background noise is recorded and analyzed to determine which HMM is more appropriate to be used (Col.3, lines 10-15). A variety of models may be used (Fig.1, item 20). Also, Goldberg et al., teach cellular interference noise, and Internet connection noise (Col.3, lines 24-26). Therefore, one or more of HMMs may include a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, as taught by Goldberg et al., (Col.3, lines 24-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the ASR filter of Damoulakis et al., with the models of Goldberg et al., because, one of ordinary skill in the art would readily recognize that a transceiver reception model, a wireless transmission model, a wireless reception model, a wireline transmission model, a wireline reception model, and a vehicle acoustical model, are all models that can representative of a signal degradation of a speech signal during cellular and Internet use.

4. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al., (US 2002/0059068 A1).

As per claim 34, Rose et al., teach an automated speech recognition filtering device, comprising:

a database operable to store a user profile corresponding to a transceiver, the user profile including a first variable indicative of an identification of the transceiver (0035 and 0036); and,

an automated speech recognition filter operable to determine a transceiver transmission model and a transceiver reception model in response to a reception of the first variable, the transceiver transmission model being representative of a first signal degradation on a first speech signal by the transceiver, (0034, 0051, Fig. 6, item 621, a transceiver includes both a transmitter and a receiver). However, Rose et al., do not specifically teach the transceiver reception model being representative of second signal degradation of the first speech signal by the transceiver. If the transmitter model can model a degraded signal after the signal was transmitted, it is obvious that the receiver model can perform the same function after the signal is received. Therefore, it would have been obvious to one with ordinary skill in the at the time of invention, to realize that an artisan with ordinary skill in the art can modify the ASR device of Rose et al., wherein the transceiver reception model being representative of second signal degradation of the first speech signal by the transceiver because, an artisan would readily recognize that the same signal processing i.e., modeling of a signal degradation, can be mirrored on the receiving side as well as on transmission side.

5. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al., (US 2002/0059068 A1), in view of Itoh et al., (5,757,937).

As per claims 35-36, Rose et al., in view of Itoh et al., teach the automated speech recognition filtering device of claim 34. However, Rose et al., do not specifically

teach a noise discrimination module operable to provide a noise discrimination signal in response to a reception of the first speech signal by said automated speech recognition filtering device, wherein said automated speech recognition filter is further operable to provide a second speech signal as a function of the transceiver transmission model and the noise discrimination signal. Itoh et al., teach a signal discrimination that differentiates between speech and noise through utilization of the frequency distribution characteristic of the signal level (Col.2, lines 18-21). Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention to modify, the invention of Rose et al., to include a noise discrimination module operable to provide a noise discrimination signal in response to a reception of the first speech signal by said ASR filtering device, wherein said ASR filter is further operable to provide a second speech signal as a function of the transceiver transmission model and the noise discrimination signal as taught by Itoh et al., because, and artisan would readily recognize that this would create noise background model for use is ASR.

Also, it would have been obvious to one with ordinary skill in the art at the time of invention, to receive an audio signal from an ASR platform, as an artisan with ordinary skill in the art would recognize that this would provide an audio signal in response to a reception of the second speech signal, because it is well known in the art to provide feedback to the user based on the context of the signal via an audio signal to the user after the user's speech is recognized by the speech recognition system. Otherwise, a user cannot use the recognized speech, and the speech recognizer will have no further application. Therefore it would have been obvious to one with ordinary skill in the art at

the time of invention to modify the ASR filtering device of claim 34, wherein said ASR filter is further operable to receive an audio signal from an automated speech recognition platform, and wherein said ASR filter is further operable to provide a second speech signal as a function of the audio signal for the purpose of providing feedback to the user of the speech recognition system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vijay B. Chawan
Primary Examiner
Art Unit 2626

vbc
6/14/07

VIJAY CHAWAN
PRIMARY EXAMINER